Remarks

Claims 1-18 are pending. Applicants propose amending claims 1, 4, 5 and 9 to address a prior art rejection by eliminating a group from the definition of Ar_1 and a number of 112 issues. Claim 1 has been amended to eliminate the C_6-C_{20}aryloyl groups and to remove the reference to unsubstituted in the definition for Ar_1. Claims 4 and 5 have been amended to rearrange a substituent condition and to remove the reference to unsubstituted for the definition of Ar_1. Claim 9 has been amended to change its dependency. No new matter has been added. Applicants submit that the amendments further prosecution by addressing a number of rejections and placing the case in condition for allowance. For these reasons, Applicants submit that good cause exists to enter the amendments even though presented after final rejection.

The Examiner objects to claim 9 for failing to further limit the subject matter of a preceding claim. The Examiner believes that claim 9 should depend from claim 8, rather than claim 7. Claim 9 has been amended accordingly.

The Examiner rejects claims 1-18 under 35 U.S.C. 112(2) as being indefinite. The Examiner maintains that the definition of Ar_1 is unclear. With respect to lines 10 and 11, the Examiner proposes an additional "or", which has been adopted. Further, the definition for Ar_1 has been amended as follows: "...or C_6-C_{20}aryloyl group or with one of the carbon atoms of the aryl ring of the C_6-C_{20}aryl or C_6-C_{20}aryloyl group; or,
provided that R_1 is acetyl, Ar_1 is C_3-C_9heteroaryl, which is unsubstituted or substituted 1 to 7 times by..." This wording clearly indicates that any heteroaryl, unsubstituted or substituted, is only defined for the case that R_1 is acetyl. Corresponding amendments have to be made in claims 4 and 5.

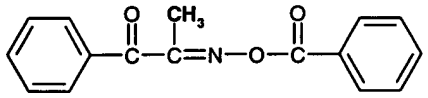
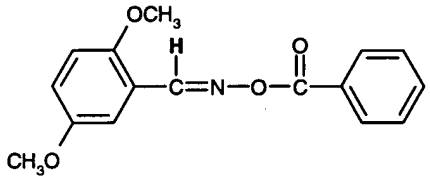
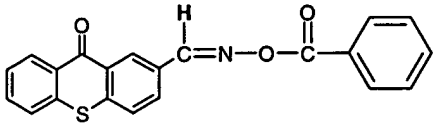
The Examiner rejects claims 1, 6, 7, 17 under the judicially created doctrine of obviousness-type double patenting over claims 6, 11, 12 and 17 of copending case 09/734,625. This rejection is provisional. Applicant shall submit a terminal disclaimer in the event this becomes the only remaining rejection, subject to a final comparison of the allowable claims herein and the scope of the copending claims.

The Examiner rejects claims 1-10, 12-16 and 18 under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,282,309 ("Laridon et al."). The Examiner acknowledges that the Laridon does not exemplify the claimed compounds, but argues that the suggested substitutions can be used for anticipation. Applicants respectfully traverse this rejection.

Laridon specifically only discloses compounds corresponding to oximes with Ar_1 = aroyl [Ar_1-C(R)=N-O-R_1]. In the present claims, Applicants have deleted "aroyl" from the definition of Ar_1, which even further distinguishes the presently claimed compounds from the ones as specifically disclosed by Laridon. Applicants request that the Examiner reconsider and withdraw her anticipation rejection of claims 1-10, 12-16 and 18 in view of Laridon.

The Examiner rejects claim 17 under 35 U.S.C. 103 as being unpatentable over Laridon. Applicants respectfully traverse this rejection.

Laridon does not specifically disclose any "aldoxime" compound. In Laridon, the specific oxime ester compounds are found in col. 3, lines 20-45. In order to give a demonstration of the inventive step for the subject matter claimed in the present application, Applicants enclose a Declaration under Rule 132 of Hidetaka Oka. H. Oka compared a "ketoxime" compound as specifically disclosed in Laridon, i.e. compound A, col. 3, line 20, with two "aldoxime" compounds according to the present invention.

Compound according to "Laridon", US Patent 4282309, col. 3, compound (A)	Compounds according to application Serial No. 09/734,635
 A	 B1  B2

The experimental procedures are discussed more fully in the Declaration. Compounds B1 and B2 are believed to represent the closest point in view of the scope of amended claim 1. These compounds are significantly more reactive as measured using a Stouffer Wedge. The results are reproduced below show an unexpected superiority of the presently claimed compounds in resist compositions.

Compound	Number of steps reproduced after exposure time of		
	40 sec.	80 sec.	160 sec.
A	2	4	6
B1	4	7	9
B2	5	6	8

The prior art does not suggest that the selected aldoxime-type compounds would exhibit such a degree of improved performance. Thus, an inventive step is clearly given for the claimed subject matter. Applicants request that the Examiner reconsider and withdraw her obviousness rejection of claim 17 in view of Laridon.

Applicants submit that the present application is now in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the Examiner contact the undersigned representative.

Respectfully submitted,

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Attorney for Applicants
Reg. No. 37,300

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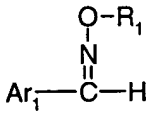
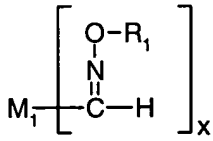
DRC/

Encl.: Declaration Under Rule 1.132, dated 18 November 2002, by H. Oka

Amended Claims with underlining and bracketing

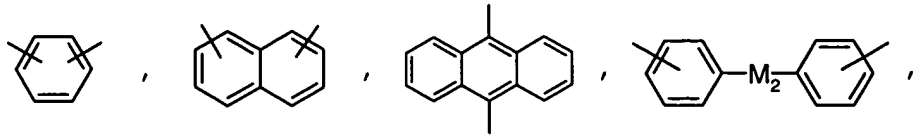
1. (amended) Alkaline developable, photosensitive composition comprising
(A) at least one alkaline soluble binder resin, prepolymer or monomer component;
(B) at least one compound of formula I or II

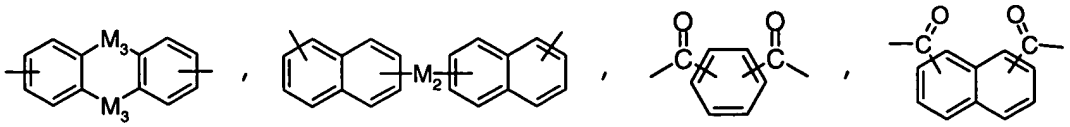

(I)

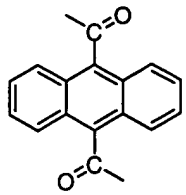

(II), wherein

R_1 is C_4-C_9cycloalkanoyl, C_3-C_{12}alkenoyl; C_1-C_{20}alkanoyl which is unsubstituted or substituted by one or more halogen, CN or phenyl; or R_1 is benzoyl which is unsubstituted or substituted by one or more C_1-C_6alkyl, halogen, CN, OR_3, SR_4 or NR_5R_6; or R_1 is C_2-C_{12}alkoxycarbonyl or benzyloxycarbonyl; or phenoxycarbonyl which is unsubstituted or substituted by one or more C_1-C_6alkyl or halogen;

Ar_1 is C_6-C_{20}aryl ~~or C_6-C_{20}aryloyl, both radicals are unsubstituted or~~ which is substituted 1 to 12 times by halogen, C_1-C_{20}alkyl, benzyl, C_1-C_{20}alkanoyl, or C_3-C_8cycloalkyl; or said C_6-C_{20}aryl ~~or C_6-C_{20}aryloyl~~ is substituted by phenyl or benzoyl each of which optionally is substituted by one or more OR_3, SR_4 or NR_5R_6; or said C_6-C_{20}aryl ~~or C_6-C_{20}aryloyl~~ is substituted by C_2-C_{12}alkoxycarbonyl optionally interrupted by one or more -O- and/or optionally substituted by one or more hydroxyl groups; or said C_6-C_{20}aryl ~~or C_6-C_{20}aryloyl~~ is substituted by phenoxycarbonyl, OR_3, SR_4, SOR_4, SO_2R_4 or NR_5R_6, wherein the substituents OR_3, SR_4 or NR_5R_6 optionally form 5- or 6-membered rings *via* the radicals R_3, R_4, R_5 and/or R_6 with further substituents on the aryl ring of the C_6-C_{20}aryl ~~or C_6-C_{20}aryloyl~~ group or with one of the carbon atoms of the aryl ring of the C_6-C_{20}aryl ~~or C_6-C_{20}aryloyl~~ group; or,
provided that R_1 is acetyl, ~~or~~ Ar_1 is C_3-C_9heteroaryl, ~~provided that R_1 is acetyl, said C_3-C_9heteroaryl~~ which is unsubstituted or substituted 1 to 7 times by halogen, C_1-C_{20}alkyl, benzyl, C_1-C_{20}alkanoyl, or C_3-C_8cycloalkyl; or said C_3-C_9heteroaryl is substituted by phenyl or benzoyl, each of which optionally is substituted by one or more OR_3, SR_4 or NR_5R_6; or said C_3-C_9heteroaryl is substituted by C_2-C_{12}alkoxycarbonyl optionally interrupted by one or more -O- and/or optionally substituted by one or more hydroxyl groups; or said ~~C_6-C_{20}aryl or C_6-C_{20}aryloyl~~ C_3-C_9heteroaryl is substituted by phenoxycarbonyl, OR_3, SR_4, SOR_4, SO_2R_4 or NR_5R_6;
x is 2 or 3;

M_1 when x is 2, is 

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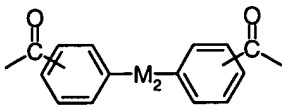
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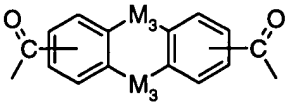
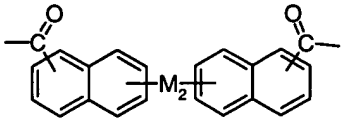
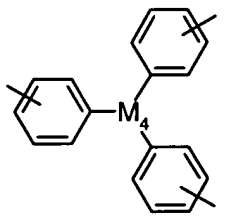
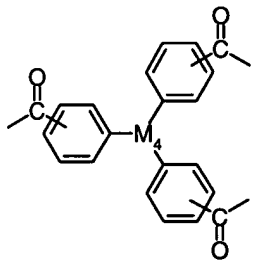
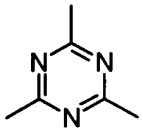
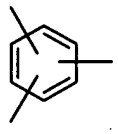

or


, each of which optionally is substituted 1 to 12 times by halogen, C_1-C_{12}alkyl, C_3-C_8cycloalkyl, benzyl; phenyl which is unsubstituted or substituted by one or more OR_3, SR_4 or NR_5R_6; benzoyl which is unsubstituted or substituted by one or more OR_3, SR_4 or NR_5R_6; C_1-C_{12}alkanoyl; C_2-C_{12}alkoxycarbonyl optionally interrupted by one or more -O- and/or optionally substituted by one or more OH, phenoxycarbonyl, OR_3, SR_4, SOR_4, SO_2R_4 or NR_5R_6;

or M_1, when x is 3, is  or  , each of which optionally is substituted 1 to 12 times by halogen, C_1-C_{12}alkyl, C_3-C_8cycloalkyl; phenyl which is unsubstituted or substituted by one or more OR_3, SR_4 or NR_5R_6; benzyl, benzoyl, C_1-C_{12}alkanoyl; C_2-C_{12}alkoxycarbonyl optionally interrupted by one or more -O- and/or optionally substituted by one or more hydroxyl groups, phenoxycarbonyl, OR_3, SR_4, SOR_4, SO_2R_4 or NR_5R_6;

M_2 is a direct bond, -O-, -S-, -SS-, -NR_3-, -(CO)-, C_1-C_{12}alkylene, cyclohexylene, phenylene, naphthylene, -(CO)O-(C_2-C_{12}alkylene)-O(CO)-, -(CO)O-$(CH_2CH_2O)_n$-(CO)- or -(CO)-(C_2-C_{12}-alkylene)-(CO)-; or M_2 is C_4-C_{12}alkylene or C_4-C_{12}alkylenedioxy-, each of which is optionally interrupted by 1 to 5 -O-, -S- and/or -NR_3-;

M_3 is a direct bond, -CH_2-, -O-, -S-, -SS-, -NR_3- or -(CO)-;

M_4 is  ,  or  ;

R_3 is hydrogen or C_1-C_{20}alkyl; or R_3 is C_2-C_{12}alkyl which is substituted by -OH, -SH, -CN, C_3-C_6alkenoxy, -OCH_2CH_2CN, -OCH_2CH_2(CO)O(C_1-C_4alkyl), -O(CO)-C_1-C_4alkyl, -O(CO)-phenyl, -(CO)OH, -(CO)O(C_1-C_4alkyl), -N(C_1-C_4alkyl)$_2$, -N$(CH_2CH_2OH)_2$, -N[CH_2CH_2O-(CO)-C_1-C_4alkyl]$_2$ or morpholinyl; or R_3 is C_2-C_{12}alkyl which is interrupted by one or more -O-; or R_3 is -$(CH_2CH_2O)_{n+1}$H, -$(CH_2CH_2O)_n$(CO)-C_1-C_8alkyl, C_1-C_8alkanoyl, C_3-C_{12}alkenyl, C_3-C_6alkenoyl, C_3-C_8cycloalkyl; or R_3 is benzoyl which is unsubstituted or substituted by one or more C_1-C_6alkyl, halogen, -OH or C_1-C_4alkoxy; or R_3 is phenyl or naphthyl each of which is unsubstituted or substituted by halogen, -OH, C_1-C_{12}alkyl, C_1-C_{12}alkoxy, phenyl-C_1-C_3-alkoxy, phenoxy, C_1-

C_{12}alkylsulfanyl, phenylsulfanyl, -N(C_1-C_{12}alkyl)$_2$, diphenylamino or -(CO)R_7; or R_3 is phenyl-C_1-C_3alkyl, or Si(C_1-C_6alkyl)$_r$(phenyl)$_{3-r}$;

r is 0, 1, 2 or 3;

n is 1 to 20;

R_4 is hydrogen, C_1-C_{20}alkyl, C_3-C_{12}alkenyl, C_3-C_8cycloalkyl, phenyl-C_1-C_3alkyl; C_2-C_8alkyl which is substituted by -OH, -SH, -CN, C_3-C_6alkenoxy, -OCH_2CH_2CN, -$OCH_2CH_2(CO)O(C_1$-C_4alkyl), -O(CO)-C_1-C_4alkyl, -O(CO)-phenyl, -(CO)OH or -(CO)O(C_1-C_4alkyl); or R_4 is C_2-C_{12}alkyl which is interrupted by one or more -O- or -S-; or R_4 is -$(CH_2CH_2O)_{n+1}H$, -$(CH_2CH_2O)_n$(CO)-C_1-C_8alkyl, C_2-C_8alkanoyl, C_3-C_{12}alkenyl, C_3-C_6alkenoyl; or R_4 is phenyl or naphthyl each of which is unsubstituted or substituted by halogen, C_1-C_{12}alkyl, C_1-C_{12}alkoxy or -(CO)R_7;

R_5 and R_6 independently of each other are hydrogen, C_1-C_{20}alkyl, C_2-C_4hydroxyalkyl, C_2-C_{10}alkoxyalkyl, C_3-C_5alkenyl, C_3-C_8cycloalkyl, phenyl-C_1-C_3alkyl, C_1-C_4alkanoyl, C_3-C_{12}alkenoyl, benzoyl; or are phenyl or naphthyl each of which is unsubstituted or substituted by C_1-C_{12}alkyl or C_1-C_{12}alkoxy; or R_5 and R_6 together are C_2-C_6alkylene optionally interrupted by -O- or -NR_3- and/or optionally substituted by hydroxyl, C_1-C_4alkoxy, C_2-C_4alkanoyloxy or benzoyloxy;

R_7 is hydrogen, C_1-C_{20}alkyl; or is C_2-C_8alkyl which is substituted by halogen, phenyl, -OH, -SH, -CN, C_3-C_6alkenoxy, -OCH_2CH_2CN, -$OCH_2CH_2(CO)O(C_1$-C_4alkyl), -O(CO)-C_1-C_4alkyl, -O(CO)-phenyl, -(CO)OH or -(CO)O(C_1-C_4alkyl); or R_7 is C_2-C_{12}alkyl which is interrupted by one or more -O-; or R_7 is -$(CH_2CH_2O)_{n+1}H$, -$(CH_2CH_2O)_n$(CO)-C_1-C_8alkyl, C_3-C_{12}alkenyl, C_3-C_8cycloalkyl; phenyl optionally substituted by one or more halogen, -OH, C_1-C_{12}alkyl, C_1-C_{12}alkoxy, phenoxy, C_1-C_{12}alkylsulfanyl, phenylsulfanyl, -N(C_1-C_{12}alkyl)$_2$, or diphenylamino; and

(D) a photopolymerizable compound.

2. (amended) Photosensitive composition according to claim 1, wherein compound (A) is an oligomeric or polymeric compound.

3. Photosensitive composition according to claim 2, wherein the photopolymerizable compound (C) is a liquid.

4. (amended) Photosensitive composition according to claim 1, wherein component (B) is a compound of formula I or II, wherein

R_1 is C_2-C_6alkanoyl or C_2-C_5alkoxycarbonyl; or R_1 is benzoyl which is unsubstituted or substituted by one or more C_1-C_6alkyl or halogen;

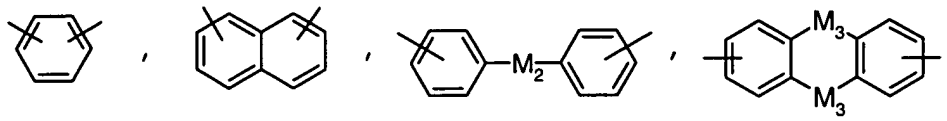
Ar_1 is phenyl or naphthyl,

each of these radicals is ~~unsubstituted or~~ are substituted 1 to 5 times by halogen, C_1-C_{20}alkyl, benzyl or C_1-C_{20}alkanoyl; or said phenyl or naphthyl is substituted by phenyl or benzoyl, each of which optionally is substituted by one or more OR_3, SR_4 or NR_5R_6; or said phenyl or naphthyl is substituted by C_2-C_{12}alkoxycarbonyl optionally interrupted by one or more -O- and/or optionally substituted by one or more OH; or said phenyl or naphthyl is substituted by OR_3, SR_4 or NR_5R_6, wherein the substituents OR_3, SR_4 or NR_5R_6 optionally form 5- or 6-membered rings *via* the radicals R_3, R_4, R_5 and/or R_6 with further substituents on the phenyl or naphthyl ring or with one of the carbon atoms of the phenyl or naphthyl ring;

or, provided that R_1 is acetyl, Ar_1 is furyl, pyrrolyl, thienyl, benzofuranyl, indolyl, benzothiophenyl or pyrridyl, ~~provided that R_1 is acetyl;~~ wherein each of these radicals is unsubstituted or substituted 1 to 4 times by halogen, C_1-C_{20}alkyl, benzyl, C_3-C_8cycloalkyl,

phenyl, C_1-C_{20}alkanoyl, benzoyl, C_2-C_{12}alkoxycarbonyl, phenoxycarbonyl, OR_3, SR_4, SOR_4, SO_2R_4 or NR_5R_6;

x is 2;

M_1 is a group  , each of which optionally is substituted 1 to 4 times by halogen, C_1-C_{12}alkyl, benzyl, OR_3, SR_4 or NR_5R_6; or by phenyl which is unsubstituted or substituted by one or more OR_3, SR_4 or NR_5R_6; or by benzoyl which is unsubstituted or substituted by one or more OR_3, SR_4 or NR_5R_6; or by C_1-C_{12}alkanoyl; or by C_2-C_{12}alkoxycarbonyl optionally interrupted by one or more -O- and/or optionally substituted by one or more hydroxyl groups;

M_2 is a direct bond, -O-, -S-, -SS-, $-NR_3$-, -(CO)-, C_1-C_{12}alkylene, phenylene, -(CO)O-(C_2-C_{12}alkylene)-O(CO)-, -(CO)O-$(CH_2CH_2O)_n$-(CO)- or -(CO)-(C_2-C_{12}-alkylene)-(CO)-; or M_2 is C_4-C_{12}alkylene or C_4-C_{12}alkylenedioxy-, each of which is optionally interrupted by 1 to 5 -O-, -S- and/or $-NR_3$-;

M_3 is a direct bond, $-CH_2$-, -O-, -S-, $-NR_3$- or -(CO)-;

R_3 is hydrogen or C_1-C_{20}alkyl; or R_3 is C_2-C_{12}alkyl which is substituted by -OH, -SH, -O(CO)-C_1-C_4alkyl, -O(CO)-phenyl, -(CO)O(C_1-C_4alkyl), $-N(C_1$-C_4alkyl$)_2$, $-N(CH_2CH_2OH)_2$, $-N[CH_2CH_2O$-(CO)-C_1-C_4alkyl$]_2$ or morpholinyl; or R_3 is C_2-C_{12}alkyl which is interrupted by one or more -O-; or R_3 is $-(CH_2CH_2O)_{n+1}H$, $-(CH_2CH_2O)_n$(CO)-C_1-C_8alkyl, phenyl-C_1-C_3alkyl, C_2-C_8alkanoyl, C_3-C_{12}alkenyl or C_3-C_6alkenoyl; or R_3 is benzoyl which is unsubstituted or substituted by one or more C_1-C_6alkyl, halogen or C_1-C_4alkoxy; or R_3 is phenyl or naphthyl each of which is unsubstituted or substituted by halogen, C_1-C_{12}alkyl, C_1-C_{12}alkoxy, phenyl-C_1-C_3-alkoxy, phenoxy, C_1-C_{12}alkylsulfanyl, phenylsulfanyl, $-N(C_1$-C_{12}alkyl$)_2$, diphenylamino or -(CO)R_7;

n is 1 to 20;

R_4 is hydrogen, C_1-C_{20}alkyl, C_3-C_{12}alkenyl, phenyl-C_1-C_3alkyl; C_2-C_8alkyl which is substituted by -OH, -SH, -O(CO)-C_1-C_4alkyl, -O(CO)-phenyl or -(CO)O(C_1-C_4alkyl); or R_4 is C_2-C_{12}alkyl which is interrupted by one or more -O- or -S-; or R_4 is $-(CH_2CH_2O)_{n+1}H$, $-(CH_2CH_2O)_n$(CO)-C_1-C_8alkyl, C_2-C_8alkanoyl, C_3-C_{12}alkenyl, C_3-C_6alkenoyl; or R_4 is phenyl or naphthyl each of which is unsubstituted or substituted by halogen, C_1-C_{12}alkyl, C_1-C_{12}alkoxy or -(CO)R_7;

R_5 and R_6 independently of each other are hydrogen, C_1-C_{20}alkyl, C_2-C_4hydroxyalkyl, C_2-C_{10}alkoxyalkyl, phenyl-C_1-C_3alkyl, C_1-C_4alkanoyl, C_3-C_{12}alkenoyl, benzoyl; or are phenyl or naphthyl each of which is unsubstituted or substituted by C_1-C_{12}alkyl or C_1-C_{12}alkoxy; or R_5 and R_6 together are C_2-C_6alkylene optionally interrupted by -O- or $-NR_3$- and/or optionally substituted by hydroxyl, C_1-C_4alkoxy, C_2-C_4alkanoyloxy or benzoyloxy; and

R_7 is hydrogen, C_1-C_{20}alkyl; or is C_2-C_8alkyl which is substituted by halogen, phenyl, -OH, -SH, C_3-C_6alkenoxy, -O(CO)-C_1-C_4alkyl, -O(CO)-phenyl or -(CO)O(C_1-C_4alkyl); or R_7 is C_2-C_{12}alkyl which is interrupted by one or more -O-; or R_7 is $-(CH_2CH_2O)_{n+1}H$, $-(CH_2CH_2O)_n$(CO)-C_1-C_8alkyl or C_3-C_{12}alkenyl; or is phenyl optionally substituted by one or more halogen, C_1-C_{12}alkyl, C_1-C_{12}alkoxy, phenoxy, C_1-C_{12}alkylsulfanyl, phenylsulfanyl, $-N(C_1$-C_{12}alkyl$)_2$, or diphenylamino.

5. (amended) Photosensitive composition according to claim 1 , wherein component (B) is a compound of formula I or II, wherein

R_1 is C_2-C_4alkanoyl;

Ar_1 is phenyl or naphthyl, each of which is ~~unsubstituted or~~ substituted by halogen, C_1-C_8alkyl, NR_5R_6 or OR_3, wherein the substituents OR_3, optionally form 5- or 6-membered rings *via* the radicals R_3 with further substituents on the phenyl or naphthyl ring; or, provided that R_1 is acetyl, Ar_1 is 2-furyl, 2-pyrrolyl, 2-thienyl, 3-indolyl~~, provided that R_1 is acetyl~~;

M_1 is  ;

x is 2;

R_3 is C_1-C_{20}alkyl; or R_3 is C_2-C_{12}alkyl which is substituted by OH, -O(CO)-C_1-C_4alkyl, -N(C_1-C_4alkyl)$_2$, -N(CH_2CH_2OH)$_2$, -N[CH_2CH_2O-(CO)-C_1-C_4alkyl or morpholinyl; or R_3 is C_2-C_{12}alkyl which is interrupted by one or more -O-; or R_3 is -(CH_2CH_2O)$_{n+1}$H or -(CH_2CH_2O)$_n$(CO)-C_1-C_4alkyl;

n is 1 to 3; and

R_5 and R_6 are C_1-C_4alkyl.

9. Photosensitive composition according to claim 8 ~~7~~, comprising 100 parts by weight of component (A), 0.015 to 120 parts by weight of component (B), 5 to 500 parts by weight of component (C) and 0.015 to 120 parts by weight of component (D).